



Attorney Docket No. S-6099

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of Dmitry Znamesky et al.

Serial No.: 10/733,761

Examiner: Not Yet Assigned

Filed: December 12, 2003

Art Unit: Not Yet Assigned

For: Micro Electromechanical Systems for Delivering High Purity Fluids in a Chemical Delivery System

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

Enclosed is an Information Disclosure Statement and accompanying Form PTO/SB/08A for the above-identified patent application.

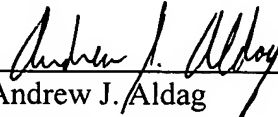
- ☒ In accordance with 37 C.F.R. §1.97(b), no additional fee for submission of the IDS is required.
- ☐ In accordance with 37 C.F.R. §1.97(c), also enclosed is:
 - ☐ the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p); or
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- ☐ Check No. _____ in the amount of \$_____ for the total fee is attached.
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☒ The Commissioner is hereby authorized to charge any additional appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 05-0460.

Dated: February 24, 2004

Respectfully submitted by
EDELL, SHAPIRO & FINNAN, LLC

By:



Andrew J. Aldag
Reg. No. 40,483

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PTO/SB/08A (08-00)

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
Sheet 1		of 3		Application Number 10/733,761 Filing Date December 12, 2003 First Named Inventor Dmitry Znamesky et al. Group Art Unit Examiner Name Attorney Docket Number S-6099	

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code ² (if known)		
		4,821,997		Zdeblick	04/18/89
		5,069,419		Jerman	12/03/91
		5,325,880		Johnson et al.	07/05/94
		5,333,381		Gelardi et al.	08/02/94
		5,465,766		Siegele et al.	11/14/95
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		6,264,064	B1	Birtcher et al.	07/24/01
		6,590,267	B1	Goodwin-Johansson et al.	07/08/03
		6,592,098	B2	Kao et al.	07/15/03

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)			

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¹ Unique citation designation number.

² See attached Kinds of U.S. Patent Documents.

³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

⁶ Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/733,761
				Filing Date	December 12, 2003
				First Named Inventor	Dmitry Znamesky et al.
				Group Art Unit	
Examiner Name					
Sheet	2	of	3	Attorney Docket Number	S-6099

OTHER DOCUMENTS – NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
		MEMS-Flow TM Model 9900 User Manual, Document: RM9719 Rev A.2b, 2001, 21 pages, Redwood MicroSystems, Inc., Menlo Park, CA		
		ALBERT K. HENNING, et al., Performance of MemS-Based Gas Distribution and Control Systems for Semiconductor Processing, 1998, 8 pages, Proceedings, SEMICON West Workshop on Gas Distribution, Mountain View, CA		
		MEMS-Flow TM Ultra-Clean Shut-Off Valve Preliminary Report, September 2000, 16 pages, Redwood Microsystems, Inc., Menlo Park, CA.		
		ALAN LEWIS et al., Fluid Dispensing Capabilities for Assembly of MEMs, 2 pages, Symtek, Carlsbad, CA		
		MICHAEL J. MUEHLBAUER et al., Applications and Stability of a Thermoelectric Enzyme Sensor, Sensors and Actuators B, 2 (1990); pp. 223-232.		
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		HOLGER LOWE, et al., Microreactors. Prospects already achieved and possible misuse, Pure Appl. Chem., Vol.. 74, No. 12, pp. 2271-2276, 2002.		
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		BONNIE L. GRAY et al., Microchannel Platform for the Study of Endothelial Cell Shape and Function, Biomedical Microdevices: 4:1, 9-16, 2002 Kluwer Academic Publishers, The Netherlands.		
		J. ZACHARY HILT et al., Ultrasensitive Biomems Sensors Based on Microcantilevers Patterned with Environmentally Responsive Hydrogels, Biomedical Microdevices 5:3, pp. 144-184, 2003, Klumer Academic Publishers, The Netherlands.		

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		J.M. GIRARD, et al., Contamination - free delivery of advanced precursors for new materials introduction in IC manufacturing, Future FAB International Issue 13 - Contamination Control, pp. 157-162, July 2002.	
		PATRICK COOLEY, et al., Applications of Ink-Jet Printing Technology to BioMEMS and Microfluidic Systems, Microfluidics and Biomems, Proceedings of SPIEVA, 4560 (2001), pp. 177-188.	
		Guide for Welding Stainless Steel Tubing for Semiconductor Manufacturing Applications, Semi F3-94 (Withdrawn 1103) 1990, 2003, pp. 1-6.	
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		PHILLIP W. BARTH, Silicon Microvalves for Gas Flow Control, Transducers '95 - Eurosensors IX, 1995, pp. 276-279.	
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		JOSEPH CESTARI, et al., The Next Step in Process Gas Delivery: a Fully Integrated System, Semiconductor International, January 1997, pp. 79-86	
		ALBERT K. HENNING, et al., Evaluating the use of MEMS-based gas and fluid delivery systems, MICRO, July/August 1998, 7 pages.	

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